IN THE CLAIMS

Please substitute claims 1-19 with the following:

1. (Currently Amended) A fractal structure ~~having a plurality of regions different in fractal dimension characterizing the self-similarity~~, comprising:

~~said~~ a first region having a first fractal structure ~~being~~ grown ~~from one or more origins under growth conditions providing a first fractal dimension in a portion of the growth process~~ from the start point of time of growth to a first point of time; and

a second region having ~~under growth conditions providing~~ a second fractal dimension ~~in another portion of the growth process~~ from said first point of time to a second point of time.

2. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein said fractal structure is controlled in nature of phase transition occurring therein by adjustment of the timing for changing said growth conditions.

3. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein said fractal structure is controlled in critical temperature for ferromagnetic phase transition occurring therein by adjustment of the timing for changing said growth conditions.

4. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein said fractal structure is controlled in nature of a chaos appearing therein by adjustment of the timing for changing said growth conditions.

5. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein said fractal structure is controlled in nature of a quantum chaos in an electron state appearing therein by adjustment of the timing for changing said growth conditions.

6. (Currently Amended) [[A]] The fractal structure according to claim 5 wherein said quantum chaos in the electron state is controlled by addition of a magnetic impurity.

7. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein said regions are nebula-like as a whole.

8. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein $D_{f1}>2.7$ and $D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.

9. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein $2.7<D_{f1}\leq 3$ and $1\leq D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.

10. (Currently Amended) [[A]] The fractal structure according to claim 1 wherein $2.9\leq D_{f1}\leq 3$ and $1\leq D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.

11. (Currently Amended) A ~~fractal structure forming~~ method ~~for forming a fractal structure having a plurality of regions different in fractal dimension characterizing the self-similarity~~, comprising:

~~growing said fractal structure from one or more origins under growth conditions providing~~ growing a fractal structure using a first fractal dimension ~~in a portion of the growth process~~ from ~~the~~ a start point of time ~~of growth~~ to a first point of time; and

~~under growth conditions providing~~ growing said fractal structure using a second fractal dimension ~~in another portion of the growth process~~ from said first point of time to a second point of time.

12. (Currently Amended) ~~A fractal structure forming~~ The method according to claim ~~11 wherein~~ 11, further comprising adjusting the first point of time ~~timing for changing said growth conditions is adjusted~~ to control phase transition occurring in said fractal structure.

13. (Currently Amended) ~~A fractal structure forming~~ The method according to claim ~~11 wherein~~ 11, further comprising adjusting the first point of time ~~timing for changing said growth conditions is adjusted~~ to control critical temperature for ferromagnetic phase transition occurring in said fractal structure.

14. (Currently Amended) ~~A fractal structure forming~~ The method according to claim ~~11 wherein~~ 11, further comprising adjusting the first point of time ~~timing for changing said growth conditions is adjusted~~ to control the nature of a chaos appearing in said fractal structure.

15. (Currently Amended) ~~A fractal structure forming~~ The method according to claim ~~11 wherein~~ 11, further comprising adjusting the first point of time ~~timing for changing said growth conditions is adjusted~~ to control a quantum chaos in an electron state appearing in said fractal structure.

16. (Currently Amended) ~~A fractal structure forming~~ The method according to claim ~~15 wherein~~ 15, further comprising adding a magnetic impurity ~~is added~~ to control said quantum chaos in the electron state.

17. (Currently Amended) ~~A fractal structure forming~~ The method according to claim 11 wherein $D_{f1}>2.7$ and $D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.

18. (Currently Amended) ~~A fractal structure forming~~ The method according to claim 11 wherein $2.7<D_{f1}\leq 3$ and $1\leq D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.

19. (Currently Amended) ~~A fractal structure forming~~ The method according to claim 11 wherein $2.9\leq D_{f1}\leq 3$ and $1\leq D_{f2}<2.3$ are satisfied where D_{f1} is said first fractal dimension and D_{f2} is said second fractal dimension.